16 October 1974

Professor S F Edwards FRS
Chairman
Science Research Council
State House
High Holborn
London WC1R 4TA

Dear Chairman

After to-day's meeting of the Atlas Computer Committee I feel that
I must communicate to you the great concern that emerges from this
meeting. We discussed the future of the Laboratory and I think it
will be best if I follow a logical rather/a chronological order of
our discussion.

(2) We are all, of course, agreed that the need for an Atlas Computer
Laboratory must be established by the users rather than by the
Laboratory. By its constitution the ACL had a sufficient representation
both from the subject committees within SRC and from outside SRC to
communicate their feelings quite clearly. The background of all our
discussions must, of course, be the increasing provision of computer
facilities to universities and research institutions through the
Computer Board. In the light of this development it is clear, as
has been said for several years, that the future role of ACL cannot
be the same as when it was originally established. The enormous
problems that arise in virtually every facet of university life will
be dealt with by the computers located at universities or shared by
groups of them. Naturally the demand will increase and there is
every reason to expect that this overall demand for the multivarious
tasks that arise in many universities will be more or less met by
university facilities. However, there are considerable pieces of the
subject matter of many of the sciences and engineering department
whose very existence depends on getting massive amounts of computing

done competently and expeditiously. This requires dedicated facilities
of a kind it is almost impossible to provide within the university

environment and where a national facility is the only feasible
solution. Lacking such a facility would simply imply that these
subjects could not be pursued in the United Kingdom with any hope of
attaining international standards. As far as can be foreseen an
institution like ACL will be needed to fulfil these needs and no
other way of satisfying can readily be appreciated. I want to stress
very strongly that this was the clear common feature of the reports
from members of this Committee familiar with grass roots feeling
in the committees and boards within SRC.

(3) As regards other users we have, as you know, a representative
of NERC who stressed forcibly the essential and probably irreplaceable
part that ACL plays in NERC's programmes and potentialities. Reference
was also made to the likely growth of demand in polytechnics, a demand
that it was difficult to quantify in a reasonable forecast but the
suggestion of which did not form part of the Computer Board's share.

(4) A national facility has to be supported on a scale commensurate
with its task. The scene is set by the provision of facilities for
universities and regional centres through the Computer Board. The
rate of expenditure by the Computer Board runs now at many millions
of pounds per year. Naturally this is centred rather unevenly through
the many university institutions in the country, but quite clearly a
national facility could never fulfil its purpose if the scale of
provision needed were not markedly superior to the average provision
made by the Computer Board to universities. I want to stress the
deep and universal concern felt in the Committee with the delay that
has occurred in focusing on the future hardware needs of this
Laboratory. A delay caused very understandably by many factors,
including that of the future location of the Laboratory, but a
delay that is hard to endure in a world that is not standing still.
Future provision for this Laboratory began to be discussed three year's
ago and in this period the facilities at universities have been
increased by tens of millions of pounds. It is urgently necessary to
come to decisions on what the future facilities of this Laboratory
should be and to reserve money firmly for this purpose. Otherwise

the ability of this Laboratory to fulfil the needs of the particular subjects in question will be compromised because a diffusion of effort in these fields will be disadvantageous to every user and a diffusion could well be forced in the not too distant future by an insufficiency of provision at this Laboratory.

(5) Another point on which views were expressed extremely forcibly and absolutely unanimously was the need for the independence of the Laboratory to be safeguarded. This independence is essential not only in fact but in appearance. We have to work in the world as it is and the reluctance of potential users to make use of facilities whose independence is not manifest is a point repeatedly and forcibly made.

(6) In coming now to the question of the future location of the Laboratory I must stress that although this is an issue on which many people feel deeply it is not in the same class of importance as the independence, real and patent, of the Laboratory and its possession of adequate capital facilities. The issue of location is therefore strictly a secondary issue and the advantages and disadvantages of the move can only be appreciated in the context of whether a move would delay or accelerate the provision of capital facilities and would compromise or not compromise the patent independence of the Laboratory.

(7) What is certainly important is that our resources, human and material, should not be scattered. Much stress has been put in the past and continues to be put on the desirability of SRC having as few computer centres as is possible. A single one is certainly the ideal. Two is less favourable but tolerable. More than two establishments is regarded by the Committee here as so unwise as to put in question the justification of a national centre at all. This, like independence, is an issue that must be paramount in the discussion of location.

It unlikely to be manifestly independent of a dominent user.

(8) Recent papers by Daresbury and ACL have worked hard to indentify
the savings and costs that would arise from a move of AC_ to Daresbury.
There is no question in our minds that a saving of 30-50 posts would
be a very significant matter in the scale that we are discussing and
is a factory that must weigh heavily in the balance. However, we
feel that two questions have not so far been looked at in any detail:

(a) What part of the savings identified is due to the rundown and
closure of NINA and must therefore not be doubly counted?

(b) What the savings in manpower would be if ACL remained at Chilton
and Daresbury's computing facilities closed accept for essential
on-line facilities and a good link to ACL?

(9) We do not feel qualified in the absence of (a) and (b) above to
pronounce formally on the manpower savings that would or would not
result from a move to Daresbury. The feeling has ever been expressed
that the difficulty of fitting into accommodation at Daresbury, not
purpose built for ACL, would have quite significant disadvantages
unless that could be mitigated in due course by an appropriate
programme of adaptation.

(10) To sum up, there is clearly conveyed evidence of the need for
a national facility owned by SRC. This facility must be hardware
equipped so as to compare reasonably with provision at universities
and regional centres and then that the necessary human resources
can fulfil the need of the particular fields of research requiring
such dedicated facilities. These fields it is thought are likely to
wither in the absence of such a facility. To fulfil this task the
Laboratory needs real and manifest independence and urgent decisions
on its future. The question of location is of prime importance
only in so far as it relates to these interests. If material savings
would result the move would be acceptable in spite of unavoidable
disruption. What is not acceptable is that consideration of the move
could delay decisions on future provision in the Laboratory.

                                             Yours sincerely

                                        Professor Sir Hermann Bondi
                                        Chairman, ACC

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